

REMARKS

In an Office Action dated May 13, 2010, claims 1, 2, 6-8, 11, 12, 22 and 24 were rejected. Herein, claims 1, 2, 22 and 24 have been amended. No new matter has been added. Applicants respectfully request further examination and reconsideration based on the following.

I. Claims Rejections under 35 U.S.C. 103(a)

Claims 1, 2, 6, 8, 11, 22 and 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 2004/0139020) in view of Sukegawa et al. (US 2003/0039380, hereafter “Sukegawa”). Applicants respectfully request reconsideration of the above-rejection in view of the following.

Claim 1 recites a receiving unit operable to wirelessly receive, from wireless IC tags attached to objects carried by a user, a plurality of pieces of tag certification information for identifying the wireless IC tags attached to the objects, respectively, that the plurality of pieces of tag certification information are a plurality of certification ID codes for identifying the wireless IC tags attached to the objects, respectively, and an update unit operable to, if a predetermined condition for update is satisfied, acquire at least two certification ID codes out of the plurality of certification ID codes wirelessly received by the receiving unit, and update contents of a tag verification information storage unit by storing the at least two acquired certification ID codes into the tag verification information storage unit as verification ID codes. Applicants respectfully submit that the above-noted features of claim 1 are not disclosed, suggested, or otherwise rendered obvious by any combination of Ono and Sukegawa.

On page 5 of the Office Action, the Examiner acknowledges that Ono fails to disclose the update unit as recited by claim 1. However, the Examiner takes the position that this feature of claim 1 is disclosed by Sukegawa. Applicants respectfully disagree that Sukegawa discloses the update unit as recited by claim 1.

Sukegawa discloses a dictionary updating process by a person recognition apparatus when primary authentication by facial recognition fails ([0169]-[0175]). In particular, Sukegawa discloses an image input unit that acquires a facial image of a person to be authenticated (i.e., the

image input unit obtains a photograph of the person via a camera). An authenticator then performs authentication of the person based on the acquired facial image of the person and a dictionary containing biometric information (i.e., facial images). If the person is unable to be authenticated by the acquired facial image, the person recognition apparatus allows secondary authorization by allowing the user to enter a password. If password authentication is successful, along with a predetermined condition for update being satisfied, the person recognition apparatus updates the dictionary with the acquired facial image of the person. In other words, the person recognition apparatus updates the dictionary with information that is photographed (i.e., not wirelessly received, but acquired by a camera) when a predetermined condition for update is satisfied, and provides no disclosure that the dictionary is updated with wirelessly received information from wireless IC tags attached to the person when a predetermined condition for update is satisfied.

In contrast, claim 1 requires an update unit operable to update contents of a tag verification storage unit with wirelessly received information from wireless IC tags attached to a user when a predetermined condition for update is satisfied.

In particular, claim 1 requires a receiving unit operable to wirelessly receive, from wireless IC tags attached to objects carried by the user, a plurality of pieces of tag certification information for identifying the wireless IC tags attached to the objects, respectively, that the plurality of pieces of tag certification information are a plurality of certification ID codes for identifying the wireless IC tags attached to the objects, respectively, and an update unit operable to, if a predetermined condition for update is satisfied, acquire at least two certification ID codes out of the plurality of certification ID codes wirelessly received by the receiving unit, and update contents of a tag verification information storage unit by storing the at least two acquired certification ID codes into the tag verification information storage unit as verification ID codes.

In view of the above, Applicants respectfully submit that any combination of Ono and Sukegawa fails to disclose, suggest, or otherwise render obvious the above-noted features of claim 1. Therefore, Applicants respectfully submit that claim 1 is patentable over any combination of Ono and Sukegawa.

Additionally, Applicants note that the above-noted features of claim 1 provide the advantageous effect that it is possible for a user to register, with ease, desired pieces of information in the authentication apparatus, as recited by claim 1, by carrying objects to which wireless IC tags including the desired pieces information are attached. As a result, the above-noted features of claim 1 make it possible to update the information without performing an extra process of photographing the information to be used for authentication by a camera.

In this regard, it should be noted that according to the presently claimed invention, it is possible to authenticate the user by using a wireless IC tag attached to an object (e.g., a handkerchief) which would be kept by the user in a pocket of the user's clothes, and thus, the user can be unaware of the authentication through the authentication process.

Applicants note that in Sukegawa, the information to be authenticated is obtained via a camera (e.g., a picture is obtained of an object via a camera in order to perform authentication). As such, if the authentication method of Sukegawa was implemented with a tag attached to an object (e.g., a tag attached to a handkerchief), the user would be required to remove the handkerchief from the user's pocket, the user would need to be aware of where the camera is placed, and the user would have to present the handkerchief to the camera in order for the handkerchief to be photographed for authentication as authentication is performed via camera in Sukegawa. Accordingly, it is noted that the authentication method of Sukegawa has the effect that the user must be aware of the authentication, and take additional steps beyond acting in a natural manner (e.g., locating the camera and removing the handkerchief from the user's pocket to present to the camera for authentication).

In contrast, the presently claimed invention makes it possible to authenticate the user and update authentication in a natural manner while the user is unaware of the presence of an authenticator (e.g., an authentication tag reader), the authentication object (e.g., the wireless IC tag attached to the handkerchief), and the authentication process itself.

Applicants note that the presently claimed invention is able to produce such an advantageous effect because the authentication apparatus of claim 1 performs wireless communication with the wireless IC tags. As a result, claim 1 provides a structure that makes it possible to authenticate the user and update the authentication information without the user needing to be aware of what is used in the authentication or what is required to be updated.

Claim 2 recites a receiving unit operable to wirelessly receive, from wireless IC tags attached to objects carried by the user, a plurality of pieces of tag certification information for identifying the wireless IC tags attached to the objects, respectively, that the plurality of pieces of tag certification information are a plurality of certification ID codes for identifying the wireless IC tags attached to the objects, respectively, and an update unit operable to, if a predetermined condition for update is satisfied, acquire at least two certification ID codes out of the plurality of certification ID codes wirelessly received by the receiving unit, and update contents of a tag verification information storage unit by storing the at least two acquired certification ID codes into the tag verification information storage unit as verification ID codes. Applicants respectfully submit that any combination of Ono and Sukegawa fails to disclose, suggest, or otherwise render obvious the above-noted features of claim 2 for reasons similar to those discussed above with respect to claim 1. Accordingly, claim 2 is patentable over any combination of Ono and Sukegawa.

Claims 6, 8, and 11 are patentable over any combination of Ono and Sukegawa based at least on their dependency from claim 2.

Claims 22 and 24 recite a step of wirelessly receiving, from wireless IC tags attached to objects carried by the user, a plurality of pieces of tag certification information for identifying the wireless IC tags attached to the objects, respectively, that the plurality of pieces of tag certification information are a plurality of certification ID codes for identifying the wireless IC tags attached to the objects, respectively, a step of acquiring, if a predetermined condition for update is satisfied, at least two certification ID codes out of a plurality of certification ID codes wirelessly received by the receiving step, and a step of updating contents of a tag verification information storage unit by storing the at least two acquired certification ID codes into the tag

verification information storage unit as verification ID codes. Applicants respectfully submit that any combination of Ono and Sukegawa fails to disclose, suggest, or otherwise render obvious the above-noted feature of claims 22 and 24 for reasons similar to those discussed above with respect to claim 1. Accordingly, claims 22 and 24 are patentable over any combination of Ono and Sukegawa.

Claim 7 was rejected under 35 U.S.C. 103(a) as being unpatentable over Ono in view of Sukegawa, and further in view of Arens (US 2001/0030603). Applicants respectfully submit that Arens fails to provide disclosure that would obviate the above-mentioned deficiencies of Ono and Sukegawa. Accordingly, claim 7 is patentable over any combination of Ono, Sukegawa, and Arens based at least on its dependency from claim 2.

Claim 12 was rejected under 35 U.S.C. 103(a) as being unpatentable over Ono in view of Sukegawa, and further in view of Omae et al. (US 2006/0174121, hereafter “Omae”). Applicants respectfully submit that Omae fails to provide disclosure that would obviate the above-mentioned deficiencies of Ono and Sukegawa. Accordingly, claim 12 is patentable over any combination of Ono, Sukegawa, and Omae based at least on its dependency from claim 2.

II. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully submit that claims 1, 2, 6-8, 11, 12, 22 and 24 are clearly in condition for allowance. An early notice thereof is earnestly solicited.

If, after reviewing this Amendment, the Examiner believes that there are any issues remaining with must be resolved before the application can be passed to issue, it is respectfully requested that the Examiner contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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